

NOAA Technical Memorandum ERL GLERL-93



**LAKE HURON WATER TEMPERATURE DATA
BAY CITY, MICHIGAN 1946-1993**

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1. INTRODUCTION

Water temperature data from several sites around the Great Lakes were obtained as part of a study to determine if any regional climatic changes or trends could be detected based upon these data sets. The study was partially supported by the NOAA Office of Global Programs. Site selection was based upon both location and reasonable data access.

This technical memorandum contains data for Bay City, Michigan from 1946-1993. Bay City water temperature data were provided by Mr. John DeKam, superintendent of the Bay City water plant. All data were hand entered into a computer compatible format.

Data are available from 1946 to November 1993. However, no data are available for the following years: 1956-1966, and 1968. Prior to 1951 the water intake depth was 5 feet, and the crib was located at 43° 40.39'; 83° 53.86'. After 1951 the intake crib was moved to 43° 43.06'; 83° 54.06', and the water intake depth was lowered to 14 feet. The daily temperatures are based upon three readings taken every 8 hours. A certified thermometer was used for all readings since September 1979; I do not know if this is true for the entire data set.

The data are plotted and shown in the accompanying figures. All data were checked for consistency prior to the final plotting. As a result, data for May 1988 was deleted and two other obvious errors were corrected. **All missing data are denoted by -999.**

Data files are identified as TM093Dxx.dat where xx identifies the data year. Data are organized into four columns: month, day, year, and temperature. Although the data are reported to the nearest 0.1°C, a more reasonable estimate of their accuracy is 0.5°C given all the uncertainties with the raw data.

All data are available in a simple ASCII format. The data files are available on our WWW site or from our anonymous FTP site. From the GLERL home page (www.glerl.noaa.gov), select FTP server or point your browser to: ftp://ftp.glerl.noaa.gov/publications/tech_reports/GLERL-93.

Although great care has been used in checking these data, mistakes may still be present. If errors are found, please contact the author at mccormick@glerl.noaa.gov.

















